

**NEW RECORDS OF BUTTERFLIES (LEPIDOPTERA:
HESPERIIDAE, NYMPHALIDAE) FEEDING ON OIL PALM
(ARECACEAE) IN WEST NEW BRITAIN, PAPUA NEW GUINEA**

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Abstract

This note confirms the presence of three butterfly species, *Erionota thrax hasdrubal* Fruhstorfer (Hesperiidae), *Taenaris phorcas* (Westwood) and *Elymnias cybele holofernes* (Butler) (Nymphalidae), feeding on oil palm (*Elaeis guineensis*) in West New Britain Province, Papua New Guinea. One of these is a well known agricultural pest of banana plants; the other two species do not appear to have been recorded previously from West New Britain.

Introduction

Oil palm (*Elaeis guineensis* Jacq., Arecaceae) is the most important foreign exchange earner of the main agricultural crops grown in Papua New Guinea (PNG) and provides a secure livelihood for some 18,300 smallholder growers and two large milling companies. While tettigoniid pests (Orthoptera: Tettigoniidae) are the main insect pests feeding on palms, other species are, or may become, pests of oil palm.

Three butterfly species found breeding on oil palm in West New Britain Province (WNB) are discussed below: *Erionota thrax hasdrubal* Fruhstorfer (Hesperiidae), *Taenaris phorcas* (Westwood) (Nymphalidae: Amathusiinae) and *Elymnias cybele holofernes* (Butler) (Nymphalidae: Satyrinae).

***Erionota thrax hasdrubal* Fruhstorfer, 1910 (Figs 1-3)**

The banana skipper is a large and distinctive member of the Hesperiidae. Adults (Fig. 1) are brown with an arrangement of three pale orange-yellow markings on the forewing; they are fast fliers, are most active at dawn and dusk (crepuscular) and are occasionally attracted to light. According to Parsons (1998), *E. thrax* (Linnaeus, 1767) appears to have been unknown in Papua New Guinea prior to 1961 and, while still not common, has extended its range in the country in recent years. Its appearance in Kimbe constitutes the first record for West New Britain Province (WNB) and it has recently been discovered on Goodenough Island in the D'Entrecasteaux Islands group, in Milne Bay Province (W.J. Tennent, unpublished data). Voucher specimens have been deposited in the PNGOPRA (Papua New Guinea Oil Palm Research Association) reference collection.

Early stages

Larvae are covered with a white waxy substance and roll the leaf of the food plant, hiding inside and emerging at night to feed. The pupa (Fig. 2) is also covered with a white powdery wax and is active if touched; adults emerge after about 14 days. Larvae and pupae are often heavily parasitized by *Brachymeria* sp. (Hymenoptera: Chalcididae).



1



2



3

Figs 1-3. *Erionota thrax hasdrubal*: (1) adult; (2) empty pupal case; (3) banana plants damaged by larvae on the Fly River near Kiunga, PNG [photo by Mark Wood].

Food plants

In some areas, *Erionota thrax* is a serious pest of bananas, shredding and rolling the leaves. Larvae have also been reported feeding on *Cocos nucifera* (coconut), *Saccharum officinarum* (sugar cane) (Corbet and Pendlebury 1992) and other monocotyledons such as *Raphis* and *Metroxylon* (Seitz 1927). Parsons (1998) did not record oil palm as a host. As the larva occurs singly, serious damage is seldom caused to palm leaflets; however, bananas may be heavily damaged by large infestations of larvae that cut and roll sections of the leaves, giving the plant the appearance of being damaged by wind (Fig. 3).

Status as a pest

Erionota thrax hasdrubal is not at present considered a pest of oil palm by PNGOPRA.



Figs 4-7. *Taenaris phorcas*: (4-5) upperside of males; (6) upperside of female; (7) underside of male. Note the empty pupal cases.

Taenaris phorcas (Westwood, 1858) (Figs 4-7)

There are several species of *Taenaris* Hübner in PNG, many of which are difficult to separate (Lambkin 2010). *Taenaris phorcas*, the oil-palm owl, is one of the most distinctive species, being darker overall than most other *Taenaris* in the region and the only species recorded from the Bismarck Archipelago (Parsons 1998, Tennent 2002). Adults (Figs 4-7) may be seen flying, with a deceptively slow fluttering flight, through oil palm plantations, often in quite deep shade; they are easily recognised by the white patches on all four wings, clearly seen in flight. It has not been recorded previously from West New Britain (Parsons 1998). Voucher specimens have been deposited in the PNGOPRA reference collection.

Early stages

Larvae were found on an oil palm leaflet at Galai LSS (West New Britain), where they fed communally in small groups. The pupa is pale green.

Food plants

Ackery (1988) noted that *Taenaris* host plants include cycads and species of Arecaceae. Parsons (1998) noted that Ribbe (1895) found larvae of *T. phorcas* (as *Taenaris uranus* Staudinger) feeding on a 'low palm'.

Status as a pest

Taenaris phorcas is not at present considered a pest of oil palm by PNGOPRA.

Elymnias cybele holofernes (Butler, 1882) (Figs 8-10)

Nominate *E. cybele cybele* C. & R. Felder, 1860, the spotted palmfly, is widespread from the islands of Maluku in eastern Indonesia to New Guinea, while *E. c. holofernes* is endemic to the islands of the Bismarck Archipelago; it is recorded here, apparently for the first time, from West New Britain. The adult (Figs 8-9) is uniformly dark brown on the upper surface and has white spots on the underside, the larger white spot on the underside of the anterior edge of the hind wing being noticeable. Voucher specimens have been deposited in the PNGOPRA reference collection.

Early stages

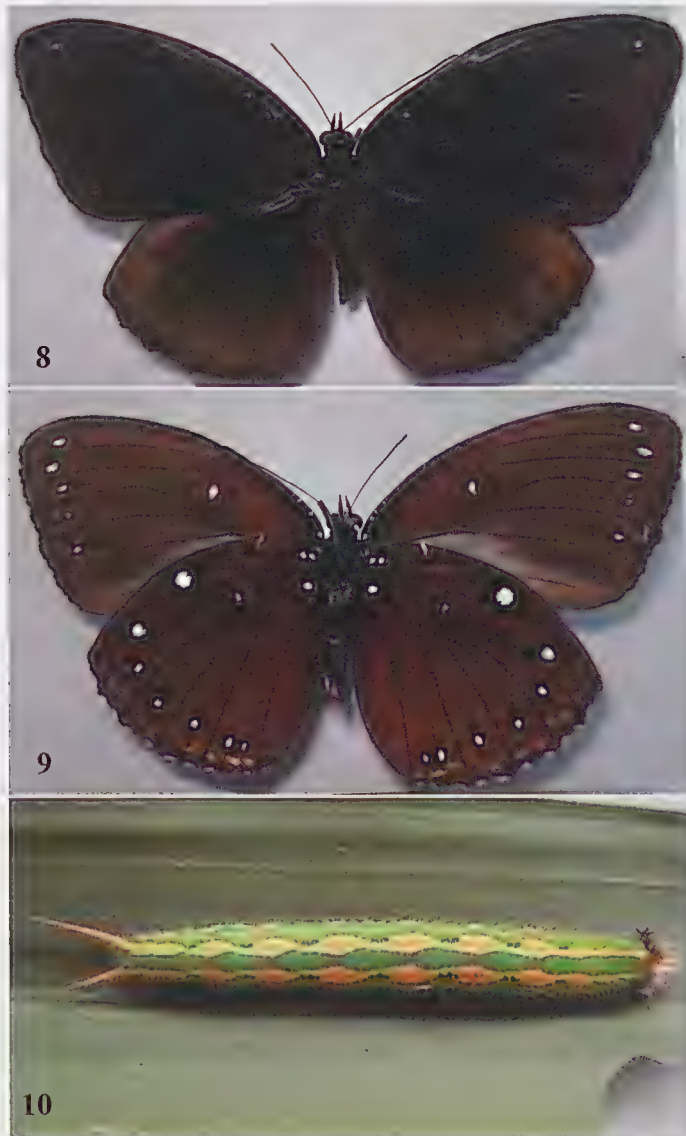
There is no description of the larva in Parsons (1998). The fully grown larva (Fig. 10) is green with yellow markings and two prominent tubercles, each tipped with three black spines just behind the head, and two long projections protruding from the posterior tip of the body. Pupae are pale green with a double series of black spots running in parallel along the dorsal surface.

Food plants

A similar species, *E. agondas* Boisduval, 1832, has been reported feeding on oil palm seedlings, banana leaves and *Calamus caryotoides* in PNG and Australia (Merrett 1993, Wood 1984, Parsons 1998). *Elymnias agondas glaucopsis* Staudinger, 1894, was reported as being abundant on oil palm by the late R.N.B. Prior (Merrett 1993). A larva of *E. cybele holofernes* (Fig. 10) was feeding on oil palm at Dami Oil Palm Research Station, West New Britain, representing a previously unrecorded host plant for this species.

Status as a pest

Elymnias cybele holofernes is not at present considered a pest of oil palm by PNGOPRA.



Figs 8-10. *Elymnias cybele holofernes*: (8) upper and (9) underside of adult male; (10) last instar larva from Dami, West New Britain.

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